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STATE SYSTEMS OF HIGH SCHOOL CONTROL

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Head Department of Education

A STATISTICAL STUDY OF FOUR-YEAR HIGH SCHOOLS IN OREGON

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STATE SYSTEMS OF HIGH SCHOOL CONTROL

The early English settlers on the Atlantic seaboard brought with them, as a part of their heritage, the institution of secondary education, known at that time as the "grammar school." This is better designated today as a "Latin school," owing to the application of this old term to the upper grades of the common school. The course of study in this school was almost entirely confined to the Latin and Greek languages and literatures, with a slight element of mathematics. The school was essentially aristocratic in character, its aim being to prepare boys, usually of the more well-to-do classes, for college and the professions. Latin schools, in the main, were supported by a public tax levied by the towns or counties. Regularly organized systems existed in four of the colonies—Maryland, Massachusetts, Connecticut and New Hampshire. If we can judge from the records, these Latin schools were never popular, and were sustained with increasing effort on the part of their promoters. Their inelastic curriculum was poorly adapted to the needs of a new, struggling community, and the sparsity of population prevented the concentration of pupils necessary to make municipal institutions a success.

Consequently there arose, during the period of the revolutionary war, a new type of school known as the "academy," which for many years provided most of the secondary education of the country. The academy differed from the "Latin school" in possessing a much wider and more elastic curriculum, including the sciences and English branches. It also depended for its initiative and control on private individuals or religious denominations, rather than on the state or municipality. This fact did not prevent the state from granting large tracts of land and sums of money to the academies. Pennsylvania, New York, Massachusetts and other states adopted schemes for chartering and subsidizing academies. At the outset, the academies were promoted as a protest against the classical formalism of the old "Latin

schools" and the colleges, but later on they took the place of the "Latin schools" in preparing students for college. They were not closely connected with the common schools at any period of their existence, and, while popular in their origin, as time went on, the academies became more and more the schools for the upper, middle, or well-to do classes, and flourished at the expense of the people's schools.

From 1815 on, however, a more democratic ideal began to prevail in American society. Class barriers were obliterated and a strong demand for increased efficiency in the common schools arose. The public high school appeared as a phase of this common school movement, many of the first high schools being regarded as simply the upper portion of the elementary school. The first American high school was founded in Boston in 1821, but for many years the increase in the number of high schools was slow. In 1850 there were only forty public high schools in the country, and at the close of the civil war the great majority of the secondary pupils were in the academies.

In the last generation a great change has taken place. Owing to the increase in wealth, the greater concentration of population in cities and towns, and to the development of excellent systems of gradation for the smaller children, the number of public high schools and students has increased by leaps and bounds. In 1889–'90 there were 221,522 secondary students in public institutions, as against 145,481 in academies and other private institutions. In 1903–'04, the last year for which the commissioner of education has given us the statistics, the number of students in public institutions had increased almost three-fold, being 652,804, while the number in private institutions had remained almost stationary, the exact figure being 169,431. At the present time (1904) there are 822,235 pupils in the secondary schools of the country, which is slightly more than one per cent. of the population. This is a ratio larger, all facts considered, than that of any other great nation. An analysis of the following figures shows the varying fortunes of the private secondary institutions in the different sections of the country. In the South, alone, are they able to maintain their hold, and even there the public high school leads in the number of students, the figures

being 53,701 for private schools to 88,191 for the public institutions.

The statistics for the other sections run as follows: East—New England and Middle States, 211,304 public, 51,477 private. West—Mississippi Valley, Rocky Mountains and Pacific Coast, 353,309 public, 64,253 private.

Along with this rapid growth in numbers, has gone a great change in the attitude of the public toward secondary education. It was formerly regarded as a luxury for the rich and well-to-do, and, therefore, an unjust burden on the public treasury. On this ground, several cases were carried into the courts. The most famous of these was the celebrated Kalamazoo case, in which the decision of the Michigan supreme court was prepared by the distinguished jurist, Thomas M. Cooley. Judge Cooley defined the attitude of the state of Michigan on the subject of public elementary education in the following sentence: "We supposed it had always been understood in this state that education, not merely in the rudiments, but in an enlarged sense, was regarded as an important practical advantage to be supplied, at their option, to rich and poor alike, and not as something pertaining merely to culture and accomplishment, to be brought as such within the reach of those whose accumulated wealth enabled them to pay for it." The court ruled that a tax for high school purposes was constitutional, a decision concurred in by the state supreme courts of Illinois and other states.

The early high schools were local in their origin and varied greatly in courses, standards, and methods. In many cases, the time was divided among so many subjects that efficiency in any was impossible. Oftentimes the teachers had no special preparation for high school subjects, and wasted the time of the pupils by using methods suitable only for smaller children. In the early 'nineties the need for greater uniformity in the courses offered and a reduction in the number of subjects studied at any one time became so evident that the National Educational Association appointed a committee, known as the "Committee of Ten," to arrange a number of standard courses and to recommend methods of teaching them. Although the detailed recommendations of this committee have not been in general followed, the

publication of its report, in 1893, marks the opening of a new period. As a result of the discussion of this report, three important practical reforms have gradually been adopted: First, the average high school student studies only four subjects at any one time; second, with one or two exceptions, each subject is studied for at least one year; third, instruction in each subject is offered by teachers especially qualified to teach that particular subject.

Another field for reform lay in the fact that there was no supervision or inspection of secondary schools. As the high schools had grown up as the result of local initiative and were supported entirely by local taxes, the state hesitated for many years to interfere in any way with their local management. In fact, it has been only within the last ten years (1896–1906) that there has been any considerable legislation on the subject. In the remainder of this paper we shall endeavor to describe the different problems which gave rise to this state legislation, and then discuss the different policies adopted, with a view to the future policy of our state. In reviewing these efforts, one is struck with the lack of uniformity in the legislation of the different states. One state has experimented along one line, the next commonwealth has proceeded in an entirely different direction, and so on through the list. Only three or four states, New York, Wisconsin, Minnesota, and California, have dealt adequately with the subject.

Ten years ago nearly all the states in the Union left the initiation of high schools entirely to the localities, with the result that a large portion of population living in rural districts were entirely without high school facilities in their home neighborhood. The sparsity of the population, and particularly the school unit in vogue in many states, the district with its small population, rendered the establishment of high schools of any efficiency impossible. The deficiency was more important, as experience had shown, that the class thus denied high school privileges, the sons and daughters of the farmers, was the class, on the average, which prized education most highly and produced the largest number of social leaders.

Two methods of grappling with this problem occurred to the school men of the country. The first was to fix the financial re-

sponsibility of secondary education in the home district or township, which must either provide the high school education at home or else pay the tuition fee of the pupil at some other high school. Massachusetts was the first state to inaugurate this plan. In the last few years the other states of New England—New York, Pennsylvania and Wisconsin, have adopted the idea in their school codes. The Pennsylvania law, passed in 1905, may be taken as typical of this legislation. It reads as follows:

"Permitting children, residing in school districts in which no public high school is maintained, to attend a high school in some other district, located near their homes, and providing for the payment of the cost of tuition and school books.

"Section 1. Be it enacted, etc., That children, residing in school districts in which no public high school is maintained, may attend a high school in some other district, located near their homes; provided the consent of the directors of the district in which said high school is located be first obtained; the cost of tuition and school books, which shall not exceed that of the tuition and school books of children in the same grades or courses in the district maintaining such high school, shall be paid to the district receiving such children, out of the moneys raised by taxation for public school purposes in the district in which said children reside; Provided, That, before admission to a high school, such pupils shall be examined and found qualified for high school work, by the principal of such high school."

Such legislation, valuable as it undoubtedly is in providing secondary education for the exceptional pupil in very backwood and poor communities, falls far short of being an ultimate solution of the problem, inasmuch as the tuition is only a small percentage of the total expense, where the pupil boards away from home. Because of this fact, the great majority of country children would be debarred from high school privileges under ordinary conditions. Another objection to this plan is that, just in proportion as it is successful, it tends unduly to bring country children to town at an impressionable age, and would, therefore, increase that drift away from country life, which is one of the discouraging features of present day society.

The next solution of the country high school problem is to

organize larger units than the school district for high school purposes. Some states have already abolished the district entirely and substituted the township for school purposes. This movement, while undoubtedly sound for thickly settled Eastern and Middle-Western states, is impossible for the states of the far West, where distances would in many sections prevent the administration of a township system. The school laws of the great majority of the Western states permit districts to combine for high school purposes. The procedure in such cases is simple. A certain percentage of the voters in each district petition either the county superintendent or local board. Upon receiving this petition, the officials must call an election, the details of which are carefully specified. If the result of the election is favorable to the high school, another election must be held to elect a union board of high school directors. Those interested in this method of forming union high school districts will find in the appendix the legislation of California and Arizona on the subject.

In each state where such legislation has been enacted, some few union high school districts have been successfully established and operated, but in the main the country population refuses to use the machinery which is thus placed in their hands. The reasons for this are probably two: First, the number of districts possible to combine is in most cases too small, not more than three or four. A small additional tax on the property in proposed union districts will not support a really efficient high school; a heavy tax, the people are not anxious to levy. Then again, to secure the proposed high school, much time must be spent by somebody in travelling about, answering questions and securing signatures to petitions. In the absence of some public-spirited person or persons to do this, the people, although well disposed toward high schools, fail to get together and organize.

So that as long as conditions render the adoption of the township for general school purposes out of the question in the states of the far West, better results can be obtained on the basis of organization by counties, the largest of our units of local government.

California, Colorado, Kansas, Montana, Nevada, Oregon and Texas report the enactment of laws for the organization of county

high schools. The procedure here is similar to that in the formation of union high school districts. A certain portion of the voters or tax-payers petition the county authorities, an election is held, if a majority favors the proposed high school the county board of supervisors levies the required taxes and appoints the first board of trustees for the high school. In Oregon, where the law has been in force five years, seven counties out of thirty-three have established county high schools. In all cases they have been counties with a small population, usually with only one considerable town in the county. Where there is a considerable population in a county, the towns and villages remote from the county seat have always, thus far, been strong enough to defeat the proposition. It is evident that the idea needs modification in the larger counties, so that instead of voting to establish a single school, a plan could be submitted providing four-year high schools in towns of considerable size, with two- and three-year high schools in important village centers. The situation calls not for one strong institution, but for a county system of high schools.

In many small communities, the essential problem is not to establish high schools, for the ambition of the people insists on founding them regardless of resources, but in securing sound work in the struggling schools already established. County superintendents all know towns which expect the principal of a three-room common school to teach, in addition, most of the subjects of a high school course. For the sake of ten or twelve pupils in the secondary stage of instruction, the training of forty or fifty children in the grammar grades is sacrificed. Under such conditions, the influence of an outside authority is undoubtedly needed. As the structure of our school system is extremely loose, it is difficult for an outside authority to exert much influence unless it has some means of reaching the schools financially. The granting of special appropriations for high schools is, therefore, perhaps the most significant step thus far taken in the control of high schools.

In all the states, pupils attending high schools draw their relative share of the common school funds. Besides this, special appropriations for high schools have been made in the states of California, Maine, Massachusetts, Minnesota, New Hampshire,

New Jersey, New York, North Dakota, Pennsylvania, Rhode Island, Vermont, Virginia, and Wisconsin. The sums voted vary all the way from $590,000 in New York, and $217,000 in Minnesota, to $8,000 in New Hampshire, the average amount being in the neighborhood of $50,000 per year.

The value of the appropriations depends, to a considerable degree, not only on their amount, but also on the method of distribution adopted. Massachusetts, New Hampshire, and Vermont, endeavor to afford the largest amount of aid to the weakest communities. Thus, in Massachusetts, "any town having less than five hundred families and having a valuation of less than $750,000 is entitled to receive from the treasury of the commonwealth all necessary amounts actually expended for the maintenance of pupils in approved high schools. Towns whose valuation exceeds $750,000, but whose number of families is less than five hundred, are entitled to receive from the treasury half of all necessary amounts expended for high school tuition in approved high schools. Towns of less than five hundred families, maintaining a high school of their own, and whose course and equipment are approved by the state board of education, and employing at least two teachers, are entitled to receive annually from the state treasury $300 for the support of the high school." In New Hampshire and Vermont, the tax rate is made the criterion, all towns taxing themselves beyond a certain limit are entitled to support from the state.

The Western states apportion the same amount of financial aid to all high schools, regardless of community wealth or necessities. Wisconsin grants each high school one-half the cost of instruction up to the limit of five hundred dollars. Minnesota is more liberal and appropriates $1,500 to each school. North Dakota and Pennsylvania discriminate between three- and four-year high schools, granting larger sums to the latter. In both states the four-year schools receive $800 and the three-year $600. Pennsylvania also appropriates $400 to the two-year high schools, a policy the wisdom of which is open to some question.

New York has enacted a much more complex system of high school support than any of the foregoing commonwealths. Firstly, $100 is appropriated to all the high schools of the state;

this amounts to $70,000 a year; then the state duplicates all sums which the high schools have spent for laboratory and library equipment. Last year $120,000 covered this item. In addition to these, the state appropriated $250,000 to the secondary schools on the basis of attendance, and $150,000 to the more sparsely settled country districts, enabling them to pay the tuition of their high school pupils away from home.

The granting of state aid enables the state authority to determine the standard of high school efficiency, below which no money will be granted. California and Minnesota provide that each state-aided high school shall establish at least one course admitting to the state university. The following regulations passed by the New Jersey board of education are typical of the stricter system of control now adopted by many states. The rules are for "approved" or four-year high schools. Special regulations were also adopted for "partial" or three-year high schools.

(66) In order to be approved, a high school must meet the following conditions:

(A) It must have at least one course of study, approved by the state board of education, covering four full years of school work.

(B) The teaching and equipment must be approved by the state board of education.

(C) The teaching force must be adequate in number, and shall, in every case, consist of at least three teachers, each of whom shall be engaged exclusively in high school work.

(D) Diplomas shall be granted only to pupils who shall have completed a full four (4) years course, aggregating at least seventy-two (72) academic counts. The counts shall be reckoned in accordance with the number of recitations per week of a school year of at least 38 weeks, and the recitation periods shall average at least 40 minutes.

The systems of financial aid are yet, in most cases, so new that it is impossible to determine their exact results. The effects are confined to the smaller communities. The larger towns and cities do not need the money, and value still less the supervision. Dr. F. E. Bolton, of the University of Iowa, who has written an able article, "Special State Aid to High Schools," in the Edu

cational Review, February, 1906, has collected a large mass of expert testimony from school men of experience supporting the policy of financial aid. A striking example of the influence which support can create is found in Virginia, as described by the state superintendent. "The success of the high school act has been phenomenal. The $50,000 appropriation by the state has been supplemented to the extent or at least $200,000 by local high school funds and voluntary contributions, and nearly one hundred fifty high schools have been established in Virginia during the past six months."

The states have worked out several different plans of supervising and inspecting high schools. In a majority of the states of the South and West, it is performed by the representatives of the state university. Sometimes this is distinctly provided for in the school law, as in California, but it is usually done by the universities on their own initiative and for their own ends. Exceptions to this general policy are Kansas, Minnesota, New Jersey, New York, and Wisconsin, which provide special high school inspectors under the control of the state department of education, or a special high school board, as in Minnesota. A few states try to control the standard of the high schools through an elaborate system of written reports without inspection. If rigidly enforced, such a system has value, but it can never be an adequate substitute for actual visitation and supervision.

In the past the state universities have performed, in many states, a distinct service for the high schools in insisting on a better quality of teaching. Frequently theirs was the only influence available. As a permanent policy, however, it may be questioned whether the interests of society are likely to be promoted by intrusting the shaping of any educational institution to another institution which has its own selfish and distinct ends to serve. This theoretical distrust is strengthened by the knowledge that in a few states the universities have actually abused their authority, by refusing to accredit work done by graduates of other universities, and in sacrificing the mental development of the high school student to the technical requirements for university courses. The university demands are frequently framed by men who have no acquaintance with high school conditions, and no other ideal in

education than the prosperity of their own particular department of study. As a temporary stimulus, university inspection is useful; as a permanent policy it tends to submerge the original purpose of the high school.

To place the important function of inspecting high schools in the hands of men acquainted only with the conditions and methods of elementary schools would be a much more serious mistake, because the high schools have been so recently emancipated from the dominion of elementary ideals and methods, that a reversion to these must be constantly guarded against. The nearest approach to a balance of these divergent interests is found in the plan devised by Minnesota, where the high schools are controlled by a board consisting of the state superintendent of education, the president of the state university, the president of the state board of normal school directors, one other superintendent, and one person appointed by the governor. This board has entire control of the schools and appoints a state high school inspector, who has the actual administration of the schools.

Another tendency in the direction of centralization takes the form of state high school courses of study, which are now found in twenty-eight states. In two-thirds of these the course is merely advisory in character; in the other one-third it is mandatory. As a matter of fact, nearly all the smaller communities use the high school course as a guide, regardless of its legal status, while the cities arrange their courses without much reference to it. With the exception of Louisiana and Montana, which have three-year courses, all the other states provide for a course four years in length. The newer high school courses of study favor great flexibility, which is secured either by a number of parallel courses or a list of options. Many of the states publish high school manuals, which furnish detailed instructions as to method and subject matter. These, together with the courses of study, have very largely standardized secondary education in the last few years, so that an observer is able to determine just how much work in any course a student should have done in a given length of time. The high school course for the state of Washington, printed below, will give the reader an excellent example of a subject schedule of the newer type. The long list of options in the last column of the table would only be possible in a large city high school. The commercial course would also be omitted in many schools.

The same lack of uniformity, visible elsewhere in this field, is evident in the certification of high school teachers. Some states have no legislation on the subject, so that anyone may teach in high schools without any legal guarantee of fitness. Many other states compel high school teachers to pass examinations intended for elementary teachers; others permit any college graduate, regardless of subjects or qualifications, to teach, upon the basis of a college degree. In Indiana, which has one of the best defined laws on this subject, the candidate for a high school certificate must prepare himself on both the academic side (subjects taught in high school), and on a list of professional subjects, which includes psychology, school management, principles of education, and school law. A college diploma entitles the holder to an exemption from the academic, but not from the professional, examination. In California, Kansas, Michigan, and other states, a college graduate who has passed with credit a certain number of courses in the department of pedagogy, receives a high school certificate.

At one time, most of the high school teachers of the country were grade teachers of unusual ability and industry, who had worked their way upward by private study, tested by examinations. Of late, in the most progressive communities, college and university graduates have largely taken the places formerly held by the promoted grade teachers. The change has been salutary, as far as scholarship, thoroughness of teaching, and intelligence, are concerned; but in the art of managing and controlling pupils, the new teachers have, in the main, been inferior to the old.

Owing to this state of affairs, a number of the stronger normal schools have begun a systematic campaign to displace university graduates, and to substitute their own alumni as teachers in high schools. This movement has been of essential service in indicating the chief weakness of university graduates as teachers, viz., their lack of acquaintance with teaching technique and devices. By spending a small sum of money in the establishment of practice high schools, the universities can easily remedy this defect. On the other hand, the equipment and limited teaching staff of the normal schools forbid competition with the universities in the field of scholarship and scientific method.

High school certificates should never be general in character, but should be good only in a single subject or group of subjects. No person in four or five years beyond the high school can qualify himself adequately to teach the entire high school curriculum. Close specialization in a single subject would be impossible for one who expected to work in the country high schools, but at least the division of subjects into the mathematical, scientific, and historical-linguistic groups, could be made, as no high school should exist with less than two teachers. Just so long as the general certificates are issued, just that long will secondary teachers be at the mercy of the whims of school boards and principals who will compel them to teach any subject on the list.

A STATISTICAL STUDY OF FOUR-YEAR HIGH SCHOOLS IN OREGON

GEORGE W. HUG

INTRODUCTORY NOTE

In making a study of the high schools of the State of Oregon, great difficulty was encountered in securing a complete report of the conditions as they really are. Complete statistics could not be secured from some of the schools, and no report could be secured from some districts.

Circular letters including blank forms to be filled out were sent to every high school in the state. A second circular, urging the necessity of filling out these blank forms, was sent some time after the first. As a result, most of the high schools replied. The three- and four-year high schools responded more readily than those with one and two grades. Personal letters were also sent to some of the more important high schools. Nineteen out of twenty-three four-year high schools responded, either with a complete or partial report. About one-half of the three-year high schools responded. Some of the two year schools reported, while the number of one-year schools reporting was very small. On this account, our study in this article is confined to the nineteen four-year high schools.

Information was secured relating to the time of organization, length of course, the number of graduates since the establishment of the high school, the number of graduates in the year 1905, and also the number of college preparatory students. The number of students and teachers in each high school, the average number of pupils to the teacher, and the place of preparation of each teacher, were complete in almost every case. The number of subjects taught in each high school, the number of pupils studying each subject, were filled out very completely by all who sent in reports. In all cases relating to students and teachers, a classification was made into male and female divisions. The number of books in the libraries of each school was given in nearly all instances. A rather incomplete account was given of the value of grounds, buildings, apparatus, and furniture. The amount of appropriation obtained by each school was too unsatisfactory to be useful. The tuition for non-resident students was given in nearly all instances. The work, as a whole, is somewhat incomplete, but it is hoped that there may be some valuable information.

AUTHOR.

HIGH SCHOOL ORGANIZATION IN OREGON

The organization of high schools in Oregon dates back as far as 1890, when the high school at Ashland was organized. From then on high schools have been organized from time to time. Out of twenty-three four-year high schools, four did not report at all, leaving nineteen reporting. From these nineteen, four did not know the time of their organization. The remaining fifteen gave the following report. Ashland, 1890; Baker City, 1891; Cottage Grove, 1896; Eugene, LaGrande, and Springfield, 1897; Pendleton, 1898; Astoria, 1900; Roseburg, 1901; Prineville and Tillamook, 1902; Burns and Salem, 1904; Gresham and Woodburn, 1905; Grants Pass, Medford, and Portland, did not give the time of organization. The above figures show that the high schools of Oregon have had a steady and uniform growth.

High schools may be organized as (1) district high schools (2) city high schools, (3) county high schools, or (4) high schools as an extension of the grammar grades. Out of nineteen reporting, three were organized as district high schools, four as city high schools, four as county high schools, and seven as extensions of the grammar grades. Two did not report on organization. It was discovered that the oldest high schools were organized under the extension of the grammar grade law. The city and the district high schools are of more recent origin, while the county high schools have been just recently organized, and all indications show that they will be organized throughout the state.

Twelve four-year high schools reported the number of graduates since establishment. Portland, Cottage Grove, Eugene, Grants Pass, and Medford, did not report. Salem and Burns have had no graduates. The remainder reported 334 males and 500 females, making a total of 834 graduates since establishment. Taking this as a basis, the relation of male and female graduates is 40 and 60 per cent.

All schools reported their graduates in 1905, except Wood-

burn, the number of boys being 117 and the number of girls 211, making a total of 328, a ratio of 35.5 to 64.5 per cent. of boys to girls. Several schools reported the number of college preparatory students, but no definite conclusion can be had, except that the percentage of boys to girls increases. The relation of boys to girls, from the figures secured, show a relation of 53 to 47 per cent. We see from this that girls are not so much inclined to attend college as are boys.

Seventeen four-year high schools reported the number of students in their school. The total number reached 3,117—1,262 boys and 1,855 girls. This shows that about one-third of the total number of students are boys. Portland is first, with 559 boys and 893 girls, making in all 1,452 students. Eugene comes second, with 131 boys and 174 girls, showing a total of 305. Salem ranks third, with 120 boys and 135 girls, in all 255. Baker City is fourth, with 88 boys and 85 girls, making a total of 173. Pendleton did not report. The Dalles has 126 students, Ashland 108, Roseburg 106, Astoria 103. The remainder are under the 100 mark. LaGrande has 90 students.

The number of teachers varies from two to thirty-two. Portland leads, with thirty-two teachers. Eugene has nine, Salem seven, Baker City and Pendleton six each, while the others range from two to four teachers each. The average number of students to the teacher varies from fourteen to forty-five; but the average number of students to the teacher in most of the schools ranges from twenty to thirty, the general average being twenty-six and two-thirds.

Inquiry was made as to where the high school teachers were prepared for their work. One hundred and eight teachers are employed in the nineteen four-year high schools reporting. The place of preparation of sixty-four teachers was secured. Of the remaining forty-four, thirty-two were from Portland and the other twelve were scattered throughout the state. Out of sixty-four teachers, twenty-five were prepared in Oregon, while the remaining thirty-nine received their education in other states. Of those prepared in the state, ten are from the University of Oregon, three each from Willamette University, McMinnville College, and the Ashland Normal, two from Monmouth Normal, one from the

Oregon Agricultural College, and three from other places in the state. Of the thirty-nine teachers that were prepared out of the state, three each are from Ohio Wesleyan University and Iowa Wesleyan College, two each from Stanford University, University of California, Oberlin College, and Colorado State Normal, one each from Whitman College, Illinois Wesleyan, University of Missouri, Parsons College, University of Michigan, University of Arizona, University of South Dakota, Western University, Brockville College, University of Pennsylvania, Puget Sound University, Wellesly, Smith, and Elmira. Eleven were prepared in other places, either small colleges, normals, or high schools. It may be seen that the high school teachers of Oregon are well prepared for their work. Most of them have either a college education or a normal school training, and in a great many cases it was found that some teachers had both a normal school and college education.

The average number of subjects taught in the high school is thirteen. Some have only ten subjects, while others have as many as seventeen. Latin, English, Algebra, and History, are taught in all the nineteen four-year high schools reporting. Geometry, Rhetoric, and Physical Geography, are taught in all except one; Botany and Physics in all but four. German and Civics are taught in eleven out of the nineteen high schools; Geology in ten; Higher Arithmetic in nine; Physiology and Bookkeeping in eight; Chemistry in six; Trigonometry in four; Zoology in three; Economics and Greek in two; and Astronomy in one. Business courses are also given in some of the high schools.

The number of students taking each of the following subjects are: Latin, 1,453; English, 2,650; Algebra, 2,296; History, 2,179; Geometry, 1,053; Rhetoric, 1,219; Physical Geography, 1,001; Botany, 308; Physics, 497; German, 664; Civics, 383; Geology, 119; Higher Arithmetic, 103; Physiology, 529; Bookkeeping, 231; Chemistry, 298; Trigonometry, 39; Zoology, 38; Economics, 11; Greek, 21; Astronomy, 23; Psychology, 2.

It may be well to state the high schools in which some of the more advanced studies are taught. Psychology is taught in the Medford high school; Greek at LaGrande and Prineville; Economics at Cottage Grove and Springfield; Astronomy at Rose-

burg; Zoology at Cottage Grove, Springfield and Portland; Trigonometry at Ashland, Astoria and Portland; Chemistry at Astoria, Baker City, Medford, Pendleton, Portland, and Salem.

Most of the high schools reported the number of copies in their libraries. Portland has the largest, with 1,740 volumes. Roseburg and LaGrande have 1,000 volumes each. The remainder average from a few copies to 600.

The average value of the grounds of the four-year high schools is from $1,000 to $3,000. The buildings range from $10,000 to $75,000. Tuition for non-resident students is payable by the month, term, or year, according to the regulations of the various schools. Twenty dollars per year is the general average.